

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-36, 52-87, 103-138 and 154 are pending, Claims 1, 52, 103 and 154 having been amended by way of the present amendment. No new matter is added.

In the outstanding Office Action, Claims 1, 52, 103 and 154 were rejected as being unpatentable over Benveniste (U.S. Patent Publication No. 2003/0174690) in view of Nyman et al. (U.S. Patent Publication No. 2003/0037033, hereinafter Nyman"); Claims 5, 15, 17, 22, 23, 27, 56, 66, 68, 73, 74, 78, 107, 117, 119, 124, 125 and 129 were rejected as being unpatentable over Benveniste in view of Nyman and in further view of Khun-Jush et al. (U.S. Patent Publication No. 2005/0054294, hereinafter Khun-Jush); Claims 33, 84 and 135 were rejected as being unpatentable over Benveniste in view of Nyman and in further view of Gubbi (U.S. Patent No. 6,934,752).

Claim 52 is directed to a wireless communication apparatus operating in a decentralized distributed communication environment constructed such that respective communication stations transmit beacons indicative of information concerning a network with each other at a predetermined time space. The apparatus includes beacon signal generating means for generating a beacon signal indicative of information concerning a local station, a beacon signal analyzing means for analyzing a beacon signal received from a neighboring station by said communicating means. The apparatus also includes timing control means for controlling a beacon transmission timing at which said communication means transmits beacons as part of an *ad hoc* network. The information concerning a network includes indications of beacons received from other communication stations that are part of said network. The language regarding the "information concerning a network" has been amended to include indications of beacons received from other communication stations

that are part of said network. It has been newly added to the claims and finds support in the specification, for example page 65, last paragraph. Therefore, no new matter is added.

One aspect of this information is that, as shown in Figure 18 for example, the beacon information transmitted from the apparatus may include (in the present embodiment) neighboring beacon activity information (NBAI). This information includes the reception timing position of beacons that can be received by the apparatus [0212]. Bit “1” is assigned to the bit corresponding to the relative position of the beacon that can be received when the beacon can be received and “0” when the timing space is assigned thereto and the beacon is not received. Thus, in the example of Figure 6 (see NBAI for Beacon-0, but recognize that the bit map is also similar for the NBAI field, see [0138]), beacons space 0, 1 and 9 are received by that particular apparatus. In the language of amended Claim 52, the “information concerning a network” including indications of beacons received from the other communication stations that are part of the network, is included as the beacons transmitted indicative of information concerning a network.

An advantage with this approach is that an apparatus newly joining the *ad hoc* network is able to identify the positions of the different apparatuses that are already part of the network, and assists the newly added apparatus so as to inform the newly added apparatus at what space the newly added apparatus should attempt to transmit the beacon, and avoid collision with other beacons.

Benveniste operates on a completely different principle. Instead, Benveniste relies on a process of “inquiry”, in order for stations joining the network to find other stations [0020]. This “active inquiry” is applauded in Benveniste as a way to minimize inquiry time [0021]. Benveniste is primarily directed to a process of identifying a global channel release, in which “neighborhood capture” can be eliminated by requiring stations to release a particular channel at specified times [0072].

The Office Action relies on paragraph [0080] in Benveniste for its disclosure of the claimed “beacons indicative of information”. However, this language in Benveniste merely describes stations transmitting a special frame such as a beacon packet, but such beacon packet does not include indications of beacons received from other communication stations that are part of the network.

Nyman is asserted for its disclosure of a decentralized distributed communication network without having an access point. However, Nyman does not cure the deficiency discussed above with regard to Benveniste, as neither Benveniste nor Nyman describe the transmission of beacons indicative of information concerning a network, as claimed. As such, it is respectfully submitted that no combination of Benveniste in view of Nyman teach or suggest all of the elements of amended Claim 52.

Although of differing statutory class and/or scope it is respectfully submitted that Claims 1-4, 6-14, 16, 18-21, 24-26, 28-32, 34-36, 52-55, 57-65, 67, 69-72, 75-77, 79-83, 85-87, 103-106, 108-116, 118, 120-123, 126-128, 130-134, 136-138 and 154 also patentably define over Benveniste in view of Nyman for substantially the same reasons as discussed above with regard to amended Claim 52.

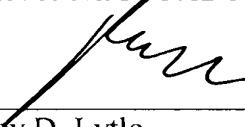
Likewise, each of the dependent claims rejected on Benveniste in view of Nyman and in further view of Khun-Jush are also believed to patentably define over these references, as Khun-Jush does not cure the deficiency discussed above with regard to amended Claim 52. Similarly, as Gubbi does not cure the omission from Claim 52 that is also absent in Benveniste and Nyman, it is respectfully submitted that any combination of Benveniste in view of Nyman in view of Gubbi patentably defines over the asserted prior art.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by each of pending Claims 1-36, 52-87, 103-138 and 154, as amended, patentably defines over the asserted prior art.

The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully submitted,

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